

WE CLAIM:

1. A flame simulating assembly for providing a three-dimensional image of flames formed by fluctuating light, the flame simulating assembly having:
 - a simulated fuel bed;
 - a light source;
 - a screen disposed behind the simulated fuel bed for diffusing and transmitting light, the screen including a conoid concavity positioned adjacent to the simulated fuel bed;
 - a flicker element for creating the fluctuating light, the flicker element being positioned in a path of light between the light source and the screen; and
 - said fluctuating light being transmitted through the screen and attenuated to form the three-dimensional image of flames.
2. A flame simulating assembly as claimed in claim 1 in which the conoid concavity extends above the simulated fuel bed, such that the three-dimensional image of flames appears to curve around the simulated fuel bed.
3. A flame simulating assembly as claimed in claim 1 in which the simulated fuel bed is at least partially positioned in the conoid concavity.
4. A flame simulating assembly as claimed in claim 1 in which the conoid concavity includes a plurality of grooves, for further attenuating the fluctuating light transmitted through the conoid concavity, to form the three-dimensional image of flames.
5. A flame simulating assembly as claimed in claim 1 additionally including a flame effect element positioned in a path of the fluctuating light between the flicker element and the screen, to configure the fluctuating light to form the image of flames.

6. A flame simulating assembly for providing a three-dimensional image of flames formed by fluctuating light, the flame simulating assembly having:
 - a simulated fuel bed;
 - a light source;
 - a screen including a front member disposed behind the simulated fuel bed and a diffusing member disposed behind the front member for diffusing and transmitting light, the front member having a partially reflective front surface for reflecting and transmitting light and the diffusing member having a conoid concavity positioned proximal to the simulated fuel bed; and
 - a flicker element for creating the fluctuating light, the flicker element being positioned in a path of light between the light source and the diffusing member, and
 - said fluctuating light being transmitted through the screen and attenuated to form a three-dimensional image of flames which appears to curve around the simulated fuel bed.
7. A flame simulating assembly as claimed in claim 6 in which the diffusing member is spaced apart from the front member, such that the fluctuating light transmitted through the screen is attenuated to form the three-dimensional image of flames.
8. A flame simulated assembly as claimed in claim 6 in which the conoid concavity extends substantially above the simulated fuel bed.
9. A flame simulating assembly as claimed in claim 6 in which the conoid concavity includes a plurality of grooves, for attenuating the fluctuating light transmitted through the conoid concavity to form the three-dimensional image of flames.
10. A flame simulating assembly as claimed in claim 6 additionally including a flame effect element positioned in a path of the fluctuating light between

the flicker element and the diffusing member, to configure the fluctuating light to form the image of flames.

11. A flame simulating assembly for providing an image of flames, the flame simulating assembly having:
 - a simulated fuel bed defining a profile thereof;
 - a light source;
 - a screen positioned behind the simulated fuel bed for transmitting and diffusing light, the screen including a plurality of curved portions, each said curved portion being adapted to attenuate the image of flames upon transmission thereof through the screen to give at least a portion of the image of flames a three-dimensional appearance; and
 - a flicker element for causing light from the light source to fluctuate to form the image of flames, the flicker element being positioned between the light source and the screen.
12. A flame simulating assembly as claimed in claim 11 in which said curved portions are randomly positioned in the screen.
13. A flame simulating assembly as claimed in claim 12 in which said curved portions are spaced apart from each other, each by at least a minimum predetermined distance.
14. A flame simulating assembly as claimed in claim 11 additionally including a flame effect element for configuring light from the light source to form the image of flames, the flame effect element being positioned in a path of light from the light source between the flicker element and the screen.